

REMARKS/ARGUMENTS

The Applicants have studied the final Office Action dated October 18, 2007 and are submitting the above amendment and the following remarks. The Applicants have added new claims 21-22 and have cancelled claims 6, 13, and 19, without prejudice. After this amendment, claims 1-5, 7-12, 14-18, and 20-22 remain pending. Reconsideration and allowance of the pending claims in view of the following remarks is respectfully requested.

Amendments to the Specification

The Applicants have amended the last paragraph of page 6 of the Applicants' specification, which continues onto page 7. This amended paragraph follows the heading "DESCRIPTION OF THE PREFERRED EMBODIMENTS." Support for this amendment is found in the specification in, for example, the Abstract. No new matter has been added by this amendment.

Claim Objections

The Examiner objected to claims 1 and 2 due to specified informalities. Office Action dated October 18, 2007, page 2, paragraphs 2-4. The Applicants have amended claim 1 to render those objections moot. The Applicants believe that the currently pending claims are in proper form and that the Examiner's objections have been overcome.

Rejection under 35 U.S.C. §112

The Examiner rejected claims 1-4 and 8 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Office Action dated October 18, 2007, page 3, paragraphs 6-10.

With regards to claims 1 and 8, the Applicants have amended claims 1 and 8 and have addressed this rejection in those amendments.

With regards to claims 2-4, the Applicants have amended these claims to conform to amendments to claim 1, from which they depend, and have addressed the antecedent basis rejection for those claims. The Applicants assert that presently amended claims overcome the rejections under 35 U.S.C. §112, second paragraph.

Rejection under 35 U.S.C. §101

The Examiner rejected claims 14 through 20 under 35 U.S.C. § 101 as being directed to non-statutory subject matter reciting a “signal bearing medium. Office Action dated October 18, 2007, page 3-4, paragraphs 11-12. The Applicants have amended independent claim 14 to be directed to “A signal bearing medium tangibly encoded with a program.” The Applicants assert that specifying that the signal bearing medium is “tangibly encoded” with the program restricts claim 14 to a manufacture and therefore is directed to statutory subject matter. Claims 15-20, which depend from amended independent claim 14, are all drawn to the same “signal bearing medium” and therefore are also directed to the statutory subject matter of a manufacture. The Applicants assert that the rejection under 35 U.S.C. §101 has been overcome.

Rejection under 35 U.S.C. §102

The Examiner rejected claims 1-2, 4-6, 8-9, 11-15, and 17-19 under 35 U.S.C. § 102(e) as being anticipated by *Goldenberg et al, U.S. Patent Publication No. 2004/0034718,* (hereinafter “Goldenberg”)

To begin, the Applicants have cancelled claims 6, 13 and 19, without prejudice, thereby rendering the rejection of those claims moot.

The Applicants have amended claims 1, 8 and 14 to more clearly define the presently claimed invention. Independent claims 8 and 14 have been amended to include corresponding limitations to amended claim 1. The following remarks will discuss amended independent claim 1 and point out that similar remarks also apply to amended claims 8 and 14.

Amended independent claim 1 includes “identifying a pre-defined destination node” that is “within a plurality of remote computer nodes to which data packets are able to be sent.” Support for this amendment is found in the specification at, for example, 6, line 16 through page 7, line 1.

Amended independent claim 1 further specifies “queuing, in an expedited transmission queue that is separate from a normal data packet queue, a first data packet that is addressed to the pre-defined destination node, wherein the normal data packet queue is used to queue data packets for transmission to other computing systems within the plurality of remote computer nodes, the other computing systems comprising destination nodes that are not the pre-defined destination node.” Support for this amendment is found in the specification at, for example, page 12, line 19 through page 13, line 2 and FIG. 3.

The Applicants point out that the Goldenberg reference is directed to “prefetching of receive queue descriptors” to perform the transfer data from a network adapter to computer system memory when the network adapter has received that data. Goldenberg, Title and paragraphs 0009-0010. The Applicants point out that although the Goldenberg reference describes loading descriptors before the data to be transferred is received, the Goldenberg reference does not teach or suggest that the multiple data packets are transferred to the same destination, which is explicitly defined by amended claim 1 as “the pre-defined destination node.” In particular, the “sending” limitation specifies that “the first data packet” is sent “to the pre-defined destination node” and that the “packet descriptor” of the “loading” limitation also “identifies a second destination node that is the pre-defined destination node.” The Applicants assert that Goldenberg fails to teach or suggest the claimed concurrent operations that include the same destination. The Applicants assert that such a concurrent operation by the system of the Goldenberg reference would not function since the data in the system memory that was first written by the communications adaptor would be quickly overwritten by the next received data packet. It would be likely that the first data set written to system memory by Goldenberg would be overwritten before the computer processor has finished processing that first

data set. Such practical differences between the system cache to system memory transfers of Goldenberg and the data communications network transfers of the presently claimed invention clearly distinguish the presently claimed invention over the Goldenberg reference and make the Goldenberg reference an improper reference to combine in an obviousness analysis.

The Applicants further point out that Goldenberg does not describe processing for “queuing … a first data packet that is addressed to the pre-defined destination node” particularly in combination with “a normal data packet queue” that “is used to queue data packets for transmission to other computing systems within the plurality of remote computer nodes, the other computing system nodes comprising destination nodes that are not the pre-defined destination node” as is set forth for the presently claimed invention. The Applicants assert that the “expedited transmission queue” and “normal transmission queue,” as well as the combination of operating with a “pre-defined destination node” and a “normal mode” as are set for by the “identifying” and “queuing” limitations of amended independent claim 1 are not taught or suggested by the cited reference.

Amended claim 1 further specifies a “sending, through a communications adapter, the first data packet to the predefined destination node” and “loading a packet descriptor associated with a second data packet … wherein the loading is concurrent with the sending....” Support for these amendments is found in the specification at, for example, page 19, lines 13-15 and As the Examiner cited in the current office action, Goldenberg teaches loading descriptors into a cache associated with receiving data from a network, where the descriptors identify memory locations into which the received data is to be transferred. Office Action dated October 18, 2007, page 5, second paragraph, citing Goldenberg, paragraphs 0008-0010, 0017, 0019, and 0045. The Applicants assert that the cited reference fails to teach or suggest this limitation, particularly when considered in combination with the other limitations set forth for amended claim 1.

With regards to the “transferring” limitation of amended independent claim 1, the Applicants point out that, as the Examiner cited, the Goldenberg reference teaches

transferring data from a cache to system memory. Office Action dated October 18, 2007, page 5, last paragraph, citing Goldenberg, paragraphs 0009, 0015, 0047, and 0049. Presently amended claim 1 recites that the “transferring” is “over the data communications network.” The Applicants assert that the cited reference fails to teach or suggest this limitation, particularly when considered in combination with the other limitations set forth for amended claim 1.

Claims 2, 9, and 15

The Applicants have amended dependent claims 2, 9 and 15 to more clearly describe one aspect of the presently claimed invention. Support for these amendments is found in the specification at, for example, page 19, lines 2-7. The Applicants reassert the above remarks concerning the failure of Goldenberg to teach the queuing multiple data packets “to the pre-defined destination.” Further, the Applicants assert that the queue pair (QP) of Goldenberg fails to queue data packets “for transmission to the pre-defined destination over the data communications network,” especially in the context of the other limitations of the amended independent claims from which these claims depend.

Claims 4 and 17

The Applicants have amended dependent claims 4 and 17 to more clearly describe one aspect of the presently claimed invention. Support for these amendments is found in the specification at, for example, page 18, lines 14-17. The Applicants refer to the above comments regarding the differences between the cache to memory teachings of Goldenberg and the data communications network of the presently claimed invention. Goldenberg would not configure sequential transfer of data to the same memory location. Amended claims 4 and 17, however, do recite “configuring ... the communications adapter for transferring of the second data packet to the pre-defined destination node over the data communications network.” The Applicants assert that the cited reference fails to teach or suggest this limitation, particularly when considered in combination with the other limitations of this claim.

Claims 5, 12, and 18:

The Applicants have amended claims 5, 12 and 18 to more clearly define certain aspects of the presently claimed invention. Support for these amendments is found in the specification at, for example, page 14, lines 16-20, and page 15, lines 16-20. The Applicants assert that the cited references, taken either alone or in combination with one another, fail to teach or suggest the combination of elements as set forth by amended claims 5, 12, and 18, particularly in light of the above remarks regarding the independent claims from which these claims depend.

Claim 11

The Applicants respectfully traverse the Examiner's assertion that Goldenberg discloses "the pre-defined destination is associated with a neighboring computer node." Office Action dated October 18, 2007, page 9, last paragraph. The Applicants point out that claim 11, which depends from claim 1, is directed to "a method, in a computer node." The Applicants assert that the Examiner's rejection of previously pending claim 1 apparently applied the processing in the network adapters of Goldenberg as a teaching of the two "transferring" limitations of previously pending claim 1. The Applicants assert that in order for the processing of the network adapter to be applied as a "method, in a computer node," the network adapter would have to be part of the computer node. If the network adapter is not part of the computer node, then the processing of Goldenberg to transfer date into the computer node cannot be a teaching of the presently claimed invention. If the network adapter of Goldenberg is part of the "computer node" performing the method, then the memory of the computer of Goldenberg cannot be a neighboring node. If, as the Examiner is apparently applying Goldenberg with regards to claim 11, then the network adapter is not part of the "computer node" performing the claimed method and therefore Goldenberg cannot anticipate the presently claimed invention.

Furthermore, as described above, amended independent claims 1, 8, and 14 distinguish over the cited references and therefore dependent claims 2-5, 7, 9-12, 15-18 and 20, which all depend directly or indirectly from amended independent claims 1, 8 and 14, respectively, contain all of the limitations of those independent claims and also

distinguish over the cited references. The Applicants therefore assert that the rejection of these claims should be withdrawn and that the application is in condition for allowance.

Rejection under 35 U.S.C. §103.

The Examiner rejected claims 3, 7, 10, 16 and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Goldenberg et al, U.S. Patent Publication No. 2004/0034718*, (hereinafter “Goldenberg”) in view of *Snyder et al, U.S. Patent No. 5,522,039*, (hereinafter “Snyder”). The Examiner recites 35 U.S.C. §103. The Statute expressly requires that obviousness or non-obviousness be determined for the claimed subject matter “as a whole,” and the key to proper determination of the differences between the prior art and the present invention is giving full recognition to the invention “as a whole.”

Claims 3, 10, and 16:

The Applicants have amended dependent claims 3, 10 and 16 to more clearly define the presently claims invention and to provide proper antecedent basis. Support for these amendments is found in the specification at, for example, page. The Applicants will discuss amended claim 3 and point out that similar remarks apply to corresponding claims 10 and 16.

The Applicants traverse the Examiner’s assertion that the Snyder reference teaches “at least one of the first data element and the second data element each comprise a user data portion that is equal to the size of a cache buffer.” Office Action dated October 18, 2007, page 14, section 15, third paragraph, citing Snyder, column 5, lines 22-34, 62-65, column 6, lines 7-10. The Examiner notes that “the data packet contains a header portion (first element) of data and a user data portion (second element),” that “data passes from the system to ... an FDDI FIFO memory (cache buffer)” and that “the FIFO is a twenty-two word memory.” The Applicants point out that the claim specifies that “a user data portion that is equal to a size of a cache buffer.” Snyder goes on to state that a header “may occupy the first few dozen bytes up to a hundred bytes or more.” Snyder, column 6, lines 10-12. The Applicants assert that the smallest size header of a “few dozen bytes” (24) would be larger than the twenty-two byte cache. Snyder goes on to state that the

total packet size (assumed to be the header and user data) ranges from “typically the low hundreds” of bytes to in the thousands of bytes. Snyder, column 6, lines 17-23. The Applicants fail to see how a “user data portion” of a first data packet or second data packet of Snyder could equal twenty-two.

Further with regards to claim 3, the “first data packet” and the “second data packet” are clearly defined to be the data packets transferred to “the pre-defined destination node over the data communications network” as is set forth by amended independent claim 1. The Applicants assert that the cited reference fails to teach or suggest this limitation, particularly when considered in combination with the other limitations of this claim.

Claims 7 and 20:

The Applicants have amended dependent claims 7 and 20 to more clearly define the presently claims invention and to provide proper antecedent basis. Support for these amendments is found in the specification at, for example, page 20, lines 5-14. The Applicants will discuss amended claim 7 and point out that similar remarks apply to corresponding clam 20.

Amended claim 7 has been amended to recite “altering the packet descriptor … so as to change the second destination node to be a remote destination node that is different than the pre-defined destination node.” Amended claim 7 further states that the “reloading” is performed after the altering and prior to the transferring. The Applicants assert that the teachings of Snyder, taken either alone or in any combination with the other cited references, fails to teach or suggest the aspect of the presently claimed invention set forth by amended claim 7.

Furthermore, as described above, claims 1, 8, and 14 distinguish over the cited references and therefore dependent claims 3, 7, 10, 16, and 20, which all depend directly or indirectly from amended independent claims 1, 8, and 14, also distinguish over the cited references. The Applicants therefore assert that the rejection of these claims should be withdrawn and that the application is in condition for allowance.

New Claims 21 and 22

Applicants have added new claims 21 and 22. Support for new claim 21 is found in the specification at, for example, page 22, lines 7-16. Support for new claim 22 is found in the specification at, for example, page 6, line 14 through page 7, line 6.

CONCLUSION

The foregoing is submitted as full and complete response to the Office Action mailed October 18, 2007, and it is submitted that the pending claims are in condition for allowance. Reconsideration is requested and allowance is earnestly solicited.

If for any reason the Examiner finds the application other than in condition for allowance, or the Examiner believes that there are any informalities which can be corrected by Examiner's amendment, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account **50-1556**.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration, re-examination, and allowance of the claims are requested.

Respectfully submitted,

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